#### THE NAUTILUS.

Genus Phacellozona Pilsbry (new name).

Synonymy: Angasia CPR., Table Reg. Chitons, 1873. DALL, Proc. U. S. Nat. Mus., 1881, pp, 283, 286, 289, 290. PILSBRY, Manual of Conchology, XIV, p. 286.

Not Angasia White, Proc. Zool. Soc. Lond., 1863, p. 498 (Crustacea).

The type of the genus will, of course, remain Angasia tetrica Cpr.

Genus Choriplax Pilsbry (new name).

Synonymy: *Microplax* AD. & ANG., Proc. Zool. Soc. Lond., 1864, p. 194. PILSBRY, Manual of Conch., XIV, p. 21.

Not Microplax Fieber, Europ. Hem., p. 53, 1861 (Hemiptera).

Type Microplax grayi AD. & ANG. This is an extremely peculiar and isolated genus, and forms, I am disposed to believe, a distinct family of the *Eoplacophora* or slitless Chitons—that is, if the slits really prove to be completely absent, for the unique type has not been disarticulated. In some features it recalls the *Acanthochitida*. The single species was described and illustrated from the unique type in the British Museum, in the Manual of Conchology, vol. XIV.

## DESCRIPTIVE NOTES ON CERTAIN FORMS OF POLYGYRA.

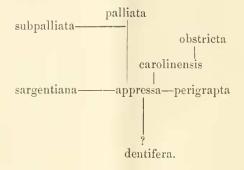
#### BY H. A. PILSBRY.

The genus *Polygyra* is one of the most numerous and characteristic groups of North American land snails. It ranges over the whole of the Eastern United States, from Canada to Florida, and from Manitoba to Yucatan, with species in Idaho and on the Pacific slope. A few stragglers have reached Cuba, the Bahamas and Bermuda.

Many of the species exhibit a great amount of variation, and in some cases the variations of several allied species form chains of mutations almost or quite connecting very nulike species. This is the case in the group of *Polygyra appressa*. Typical *P. appressa* is a snail having the aperture three-toothed, but the upper lip tooth is often small or wanting. It varies toward *P. obstricta* var. carolinensis, which is close to *P. obstricta*, and less so to *P. palliata*. In another direction *P. appressa* is allied to *P. sargentiana*. In fact, *appressa* is not far from the ancestral form from which all the spe-

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cies mentioned above have been differentiated. This diagram expresses roughly the relationships of the species and varieties:



### Polygyra appressa Say.

Surface striate, but having no spiral incised microscopic lines; outer lip frequently having an upper tooth, or the indication of it; parietal tooth generally long, curving downward and nearly joining the columellar lip.

This species was collected by Say on Long's Expedition. It is abundant in Illinois, Arkansas, Missouri, etc. Say's types are lost, but his description unmistakably indicates this form.

# Polygyra appressa perigrapta Pils.

Surface striate and having crowded microscopic spiral incised lines, especially beneath; outer lip with no upper tooth; parietal tooth short, not connecting with columella.

Distribution mainly southern; Woodville, Ala.; Cherokee Co., N. C.; Columbus, Ga.; etc. The types are Woodville specimens.

### Polygyra fallax Say.

This is, as the writer has elsewhere shown, the H. introferens of Bland. It is not the fallax of all modern writers and collectors.

## Polygyra fallax obsoleta Pils.

General features as in the type, but all teeth of the aperture much reduced in size, the upper lip tooth nearly or wholly obsolete. Newbern, N. C.

# Polygyra tridentata edentilabris Pils.

General characters as in the type, but lip teeth wanting in perfectly mature examples.

### Polygyra hirsuta altispira Pils.

Size large; spire high and conical; notch of the basal lip very large. Alt. 7, diam. 9 mm.

Specimens are before me from near Magnetic City (Wetherby) and from the Black Mountains, N. C. (Hemphill).

# REMARKS ON ASTYRIS GOULDIANA.

BY A. H. GARDNER, FORT HAMILTON, N. Y.

In a careful examination of the Columbellidæ dredged by me last summer in Long Island Sound, I find amongst specimens of *Astyris lunata*, taken from a muddy bottom with eel grass, in 2 to 3 fathoms of water in Lloyd's Harbor, 3 shells which are typical examples of *Astyris gouldiana* Agassiz in *litt.* (fide Stimpson) and again recorded from this same locality by Mr. Sanderson Smith in "The Mollusca of Long Island and its dependencies," Smith & Prime. The species seems to have been considered as of doubtful validity by Prof. Verrill, as in "The Invertebrate of Vineyard Sound," he includes it in the synonomy of *Astyris lunata*, referring to it as a color variety identical with the *Wheatleyi* of Dekay, but I think the characteristics of the shell entitle it to rank as a good species.

The shells measure in length 4 to  $4\frac{1}{3}$  mill., and have 8 whorls. A. lunata rarely exceeds 3 mill. and has from 6 to  $6\frac{1}{2}$  whorls; in *Astyris gouldiana* these whorls are more convex and inflated.

The apical termination of the shell resembles that of *Belemnitella* americana, whilst in the general outline of its whorls it is very much like the well known land mollusk, *Ferussacia subcylindrica*. The rostrum is not only much produced but is curved to such an extent in two of the specimens as to give the aperture a decidedly auriform appearance. The thick loosely appressed callus on the pillar lip of *A. lunata* is represented in this shell only by a very fine glaze. The specimens all exhibit clear zigzag markings of a brownish red, which are more pronounced than those found on any examples of *A. lunata* in my collection.

The division line between the two species seems to me to be quite sharp, both as regards size and form. I have seen no shells which